# Cybernetic Melancholia: Chris Ware's *Building Stories* and Cultural Informatics

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Chris Ware's formal and stylistic inventiveness in his 2012 graphic narrative, *Building Stories*, presents a challenge to traditional theories of the form. This essay argues, however, that Ware's experimentation can be understood through the descriptive language of cybernetic thought. Whilst the use of informatics may suggest a neutral or affectless register, *Building Stories* in fact presents a convergence between cybernetics and the affect of melancholia. Indeed, this is a convergence already suggested by Freud's model of the melancholic, which functions analogously to a reflexive feedback system. Having located Ware's graphic narrative within a longer trajectory of the exchanges between informatics and post-war literature, this essay identifies three concepts from that tradition—*homeostasis*, *autopoiesis*, and *digitality*—to understand *Building Stories*' formal properties. The term, 'cybernetic melancholia', is proposed to describe the convergence between such properties and the register of melancholic affect; a convergence which, it is argued, represents a significant means of expressing the experience of a contemporary moment in which information systems are an epistemic ubiquity and melancholia is a prevalent affective register.

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It is difficult to know where to look upon opening the hardcover book which forms one piece of Chris Ware's formally inventive graphic narrative, *Building Stories* (2012).[1] The reader's eye is not guided by the linear sequence of images typical in graphic storytelling. Instead, the spatial organisation of this double-page spread (fig. 1)[*] forces the eye to trace lines of association—displayed in patterns of words as well as arrows—which cross and bifurcate, loop and tangle around the panels. The linear sequencing of traditional comics is distended and redistributed such that the reader must apprehend that there is no correct passage to follow through the image; each route taken loops back upon itself and dissolves into a new narrative

[*] For copyright reasons, the images have been omitted from the Open Access version of this article.

pathway. The reader must therefore decide, unaided, how to disentangle this seeming clutter of words, lines, and shapes. In this way, the image represents a problem not only for the reader familiar with typical panel layouts, but also for the critic trained in the idea—fundamental to theories of the graphic narrative form—that reading follows a linear progression from one panel to the next, guided by their sequential arrangement. In *Understanding Comics* (1993), the graphic novelist Scott McCloud argued that the gap, or 'gutter', between panels is bridged through the process of 'closure', in which the intervening time, space, or action between the two images is imagined by the reader.[2] In *Building Stories*, it is clear not only that the familiar mode of graphic expression is being disrupted, but that this disruption renders mute the vocabulary that literary criticism has typically used to describe that mode.

A much-analysed page in *Jimmy Corrigan: The Smartest Kid on Earth* (2000) (fig. 2) reveals Ware's own consciousness of this formal theory.[3] Taking one panel from his earlier 'Quimby the Mouse' strip, he dissects its internal workings according to McCloud's principles. Following the taxonomy to an absurd level of detail, he draws the supposedly-imagined extra images which lie between the panels, extra detail beneath his simple drawing style, and the symbolic architecture which indicates that the reader should imagine that time is passing. In rendering the theory in the visual format it theorises, Ware uses its explanation to create an image which, reflexively, can no longer be interpreted according to the principles of that explanation. In *Building Stories*, this procedure is undertaken again; here, as an elaboration not of theory, but of narrative. The unnamed protagonist lies in bed, in the bottom panel, while her anxious, depressive thoughts and flights of imagination are depicted above. It is her torturous psychological state which necessitates such non-sequential elaboration. Isaac Gates has claimed that these moments in Ware's work convert the linear sequencing of traditional graphic narratives into the 'spatial juxtaposition' of information common to graphical diagrams.[4] I claim that the looping lines, text, and images—which are employed in *Building Stories* to evoke the protagonist's spiralling affective state—form not only a diagram, but specifically the

diagram of a cybernetic system (fig. 3): lines of narrative significance are drawn through the logic by which the internal flows of information are drawn in cybernetics.

I find the departure point for this essay in the two problems posed by this opening double-page of the hardcover book. First, that the traditional theorisation of graphic narratives is inadequate to describe Ware's formal and stylistic devices. Second, that moments such as that described above, wherein these inadequacies of the traditional theorisation are revealed, emerge from the representation of anxious and depressive mental states. The first of these problems emerges from *Building Stories*' specific resistance to the basic units of sequential narrative. In his arrangement of panels, Ware's work has long drawn on diagrammatic and other nonlinear pictorial conventions to present elaborate constructions of space and time. But *Building Stories* also enacts such formal distensions at the level of the book as object: it takes the form of fourteen different printed texts, each a discrete narrative piece, that do not cohere into either a sequential or a complete narrative trajectory. Prominent theorisations of the graphic form since McCloud have offered important revisions of his concepts, but have still largely claimed the fundamentality of sequential narrative structure at both local and larger formal levels. Thierry Groensteen's productive term, 'arthrology', for example, systematises not only the relation between adjacent panels, but also the broader relations that occur across an entire work.[5] However, the basic structure of this relation is that of a greater or lesser proximity in the sequencing of panels. Thus, structural relations are divided into '*restricted arthrology*', those of an adjacent, linear type, and '*general arthrology*', those of a 'distant', 'translinear' type.[6] Whilst useful for the analysis of typical formal conventions, these concepts are resisted by Ware's experimentation with diagrams and a fragmented book-object which evoke patterns of relation, rather than a sequence, and which mark less clear divisions between the panel and the gutter.

Nevertheless, *Building Stories* is not simply without formal organisation. Indeed, I find the specificity of Ware's experimentation in the sense that the ostensible rules of the graphic

narrative form are being broken without the final work devolving into stylistic, formal, or narrative arrangements that are indiscernible or disorderly. To isolate this mode, I will address Ware's formal experimentation by drawing on three concepts from the framework of cultural informatics, particularly from cybernetic thought—*homeostasis*, *autopoiesis*, and *digitality*. Thinking through such properties, of what Bernard Dionysius Geoghegan has called the 'cybernetic apparatus',[7] will enable the construction of formal concepts that retain both the sense that traditional graphic storytelling is being disrupted and the extent to which a different form of order is being imposed upon the images. The eye may not know where to look at first, but the double-page spread described above is not a disordered image; it is rendered precise and intricate through the logic of information systems.

The second problem will be addressed by placing this poetics in dialogue with theories of melancholia. I argue that there is an aesthetic mode created in the convergence of cybernetic thought with the attempt to express anxious and depressive mental states. This aesthetic mode, which I call *cybernetic melancholia*, can be seen as the confluence of the logic of cybernetic thought and the affect of melancholia into an aesthetic particular to a contemporary moment in which information systems are an epistemic ubiquity and melancholia describes a prevalent affective register. This is not, it should be noted, a melancholia produced by cybernetics or information systems, or an informatic register produced by melancholic affect. Instead, it is a coexistence and mutual restructuring of both cybernetic thought and melancholia, and it is this coexistence and mutual restructuring which produces the particular aesthetic mode to be found in Chris Ware's *Building Stories*. As such, this essay presents an argument about *Building Stories* and what it does, specifically, with graphic form. But this essay also presents an argument about the critical provocation this form offers for thinking about our cultural present, in which informatics is central to the dominant modes of economic, social, and political organisation. In this way, the project will not be to establish the genealogical roots of

cybernetics in Ware's work, but to establish conceptual parallels that may prove useful in theorising the complex entanglement between aesthetics and informatics today.

It will be useful, then, briefly to frame *Building Stories* within a longer narrative of the exchanges between cybernetics and post-war literature. The immense popularity of the American mathematician Norbert Wiener's 1948 book, *Cybernetics, or Control and Communication in the Animal and the Machine*, served to place its vocabulary of information processing, feedback loops, and the isomorphism between humans and machines at the centre of the cultural reception of computation and its attendant technologies. For James Baldwin, a veritable 'cybernetics craze' characterised his memory of the early 1950s; indeed, one of the many products of this craze was the concept of the 'information age' itself.[8] Broadly speaking, literary criticism has mapped out two periods of cybernetics and information theory's reception in literature. The first maps the influence of this early post-war craze upon late modernist, and the beginnings of postmodernist, writing. Kurt Vonnegut, Thomas Pynchon, and William Gaddis, among others, drew on the terms and concepts of cybernetics in reacting to the material extension of informatics and computation out of scientific communities and into the technologies and discourses of the military and political institutions of Cold War America.[9] Such discursive overlap helped to produce radical transformations in the style and form of the novel, attended by anxieties concerning the reorganisation of subjectivity in a world where humans and machines were seen to be communicatively isomorphic. Other authors, perhaps most prominently Samuel Beckett, whilst not name-checking cybernetics and its concepts directly, have nevertheless been argued both to display and to critique the concepts of cybernetics and information theory within the nuances of style.[10] Here, conceptual exchange is emphasised more than discursive overlap. In registering the logic of cybernetics in his use of language, Beckett has been read to offer insights into those epistemological changes fashioned throughout its dissemination, such as the representation of 'human activities as discrete and

thus modellable units', in his 'foregrounding [of] those aspects of being that cannot be effectively processed in this way'.[11]

The second period comes into view as the technologies and discourses that have circulated the legacy of cybernetics are seen to create subcultures productive of their own literary output. In 1984, William Gibson's *Neuromancer*—coining the word, 'cyberspace'—emerged from the culture of hacking to herald a subgenre, 'cyberpunk', in which cybernetics became the basis for a new form of science fiction; one that has since become the paradigmatic example of cybernetics' cultural influence. Here, discursive overlap is emphasised and becomes the innovator of a new metaphorical vocabulary in which 'cyborg' bodies cause shocks to ontology in their imagining of the human's displacement by the posthuman.[12] Indeed, another topography for this period might be mapped by re-addressing those authors, such as Octavia Butler, Samuel R. Delaney, and James Tiptree Jr., that Donna J. Haraway proposed as the 'theorists for cyborgs'.[13] The apex of this period can be dated to the late 1990s, as cyberpunk increasingly moved from the domain of subculture to that of mass culture—emblematised in the release of *The Matrix* in 1999. Subsequently, in the first two decades of the twenty-first century, the expansion of computers into every area of contemporary life in the Global North has taken place at the same time as cybernetics' conceptual descendants have become normalised into the fabric of mainstream science fiction and cultural vernacular. As Orit Halpern writes, the 'very continuation of the terms "cyber" and "cyborg" in our imaginings of digital technology, information networks, and human-machine interaction bears witness to… [the] dissemination of cybernetics and information theory throughout the social field'.[14]

Indeed, such normalisation suggests the emergence of a third period which is only now beginning to be mapped within literary criticism. It is within this third period which I believe *Building Stories* can be located. Seb Franklin has considered this process of normalisation through an analysis of the difference between computational interfacing in *Neuromancer* and in Gibson's 2003 novel, *Pattern Recognition*, which he calls 'a relationship of growing

familiarity' in which 'users are brought closer to the instrumentality and ubiquity of their software and further from the logical and physical processes that make it possible'.[15] Following Franklin's sketch, this third period of the exchange between cybernetics and literature could be conceptualised as a move from discursive overlap to discursive confluence via normalisation. Here, the contemporary ubiquity of a wide variety of the descendants of cybernetic thought is indicative of an episteme for which certain cybernetic concepts, once perceived as the substance of radical challenges to understandings of ontology, temporality, and perception, are now the substance of quotidian lived experience.

Such a ubiquity of cybernetics' descendants—what I am calling, 'cultural informatics'—may suggest affectless immateriality. *Building Stories*, however, offers a different understanding, one which places such ubiquity in dialogue with an earlier mode in the interaction between literature, art, and informatics. The many inflexibly and recalcitrantly material aspects of its printed form,[16] which resist easy correspondence with the perceived immateriality of information, in fact have much in common with the work of artists—such as those exhibited in 'Cybernetic Serendipity' at the ICA in 1968—for whom cybernetics' first cultural phase 'offered… a scientific model for constructing a system of visual signs and relationships, which they attempted to achieve by utilizing diagrammatic and interactive elements to create works that functioned as information systems'.[17] I will return to this point at the conclusion of the essay, suggesting how, in the staging of its own materiality, *Building Stories* offers insights into the contemporary ubiquity of cybernetics in everyday life. But first, in my use of cybernetic concepts in what follows, I will show how the reader of Ware's graphic narrative is continually faced with the parallel existence of an aesthetic rendered in informational terms and the accessing of that aesthetic through an inflexibly solid printed form.

**Homeostasis, Autopoiesis, Digitality**

*Building Stories* was first published in its complete form in 2012, after sections had previously appeared in a range of magazines and newspapers. In its collected form, Ware's graphic narrative resembles the box of a board game, which is opened to reveal a set of fourteen different printed texts—comic books, posters, and a broadsheet newspaper, among others. There is no suggested reading order for these pieces. Instead, the reader must choose each subsequent piece, unguided, upon finishing the last, thereby selecting one of the more than eighty-seven billion different sequences in which the elements that make up *Building Stories* can be read.[18] Nevertheless, such a choice only changes the composition through which the narrative is experienced. The events are not altered by the sequence of reading which is chosen, only their arrangement within the narrative; in formalist terms, the reader plays an active role in the formation of *syuzhet*, but not in the creation of *fabula*.

In this sense, *Building Stories*' formal apparatus may be reminiscent of earlier experiments in destructuring the printed form of literary works; most famously, B.S. Johnson's *The Unfortunates* (1969). However, where Johnson's experiment tends towards an experience of disorder for the reader, a means to express the mind's indiscriminate accessing of memory, Ware's tends towards a form of order gleaned from the recurrence of events within the narrative. Across the fourteen pieces, the same events are revisited multiple times, and each revisiting presents a new perspective upon their narrative significance. For example, the comic book titled, 'Branford: The Best Bee in the World', and the broadsheet newspaper titled, 'The Daily Bee', depict two stories within the life of Branford, a bee, which cross over into the narratives of the human characters at multiple junctures. Branford's death at the end of 'The Best Bee in the World' (fig. 4) is also depicted in the coverless comic book which focuses on the life of the building's landlady. However, in this occurrence it is represented from the perspective of the tenant who has just squashed Branford underneath his foot. If the landlady comic book were chosen before 'The Best Bee in the World', Branford's death would only register as the everyday squashing of a bee. If, by contrast, 'The Best Bee in the World' were

chosen first, then his death would be placed in the context of the story of his life and, therefore, would be imbued with significance. This central structural device not only organises the interpretation of events in various ways, depending on the reading sequence, but also confronts the reader with a dizzying mass of potential organisations of the narrative material which they are unable to experience. Since they can only actualise only one such potential, the reader is faced with the multitude of potential interpretations which they exclude by activating one reading pathway through *Building Stories*' narrative architecture.

A useful means to approach such a reading structure can be found in the cybernetic conception of *homeostasis*.[19] The term describes the way in which the products of a system are fed back into it in such a way that its variables are regulated to maintain internal stability. Feedback occurs in the system's recursion: the same procedure of modification must be enacted on the system state which the receptor has produced by its previous modification, so that the system forms a continuous loop. The major innovation of cybernetics, as Peter Galison explains, was to conceptualise this relationship according to flows of information, enabling the novel 'abstraction [of] *feedback systems*' and its 'collocation [of feedback regulators] defined by an abstract causal loop'.[20] A fluctuation in, say, temperature can be understood as a set of messages from which a thermostat system is able to decipher the information that a modulation in heat input is required. Once rendered as information flows, in theory, no matter how complex the system, it can be observed and modelled according to this simple diagrammatic logic. As such, the method represented an attempt to take the vertiginous complexity of the world and reduce it to a quantifiable form.

Just as, for example, the innumerable variables of a factory production sector could be converted into a limited, quantifiable system model for cybernetic analysis (see fig. 3), so, in *Building Stories*, eighty-seven billion potential combinations of fourteen texts are reduced to a singular pathway via information production. As such, the structure of reading is analogous to the creation of information within a recursive system. As Warren Weaver summarised in his

companion essay to Claude Shannon's 'A Mathematical Theory of Communication'—the founding text of cybernetics' disciplinary cousin, information theory—information is created when the '*information source* selects a desired *message* out of a set of possible messages', so that '[i]nformation is a measure of one's freedom of choice when one selects a message'.[21] Each time readers choose the next piece of *Building Stories*, they also select one narrative option out of a set of possibilities, thereby converting the material into usable information through the basic method of informatics—the selection from a set of binaries in the form, *yes/no*, *on/off*, and so on. In cybernetic terms, the process of reading *Building Stories* could be modelled by the diagramming of fourteen choices, the first a selection from a set of fourteen binaries—with each choice creating one piece of information, all the way until the final choice is determined by the one remaining piece. The system this model would describe produces homeostasis through recursion at two levels, the second following from the first. At the first level, the reader returns to the choice of which piece to read next multiple times, looping the information produced by the previous choice back into the system. At the second level, the narrative revisits the same events multiple times, modulating the information according to the system's recursion. As such, conceptualising the reading experience as a recursive feedback loop foregrounds the way in which it is both a disruption to a more traditional model of linear reading and a homeostatic—that is, stable and orderly—information loop between reader and text.

Homeostatic recursion is not the only procedure of looping which occurs in *Building Stories*' formal apparatus. In the coverless comic book titled, 'Disconnect', the reader encounters a moment in which Branford appears once more, but not, this time, as a contemporaneous narrative. The unnamed protagonist promises a bedtime story to her daughter, who replies 'Oh, boy! Branford Bee?'[22] The Branford character is relocated as a fiction within the fiction—a creation of a character within the narrative, rather than a narrative running alongside it. Whilst this does not eliminate the sense of recursion—since the events of

the protagonist's narrative are revisited nonetheless—a level of reflexivity is layered over top of it. Such a reflexive moment would appear to be thinkable under the terms of postmodernist aesthetic technique; however, I contend that the typical account of such technique does not explain the looping structure of the reflexivity present in *Building Stories*.

Although postmodernist 'metafiction' is certainly an element within Ware's technique, the term cannot account for the multiple loops, both recursive and reflexive, present in *Building Stories*. Brian McHale's definition of the 'hypodiegetic' in postmodernist fiction comes closer: 'hypodiegetic worlds' are created on 'one "level" down' within the fiction, he explains, rather than the one level up of metafiction.[23] However, it is not enough to say only that Ware's reflexivity sends the reader 'one "level" down', since the Branford hypofictions also exist as actualised texts in the reader's world—as 'The Best Bee in the World' and 'The Daily Bee' pieces of *Building Stories*. The movement through the levels of fictionality, rather, appears to loop back around to the level of metafiction even as it moves further levels down into hypofiction. The division between hypo- and metafiction is short-circuited. Therefore, we must search for a different term to encompass this complex reflexive procedure.

I find such a term in what the cyberneticist biologists Humberto Maturana and Francisco Varela called 'autopoiesis', which theorises the cybernetic system as a closed loop that includes both the observer and the environment within one system.[24] The thermostat no longer would be seen to be a system which reacts to the environment of the house. Instead, the house, along with its inhabitants, would form an entire temperature regulation system within which the thermostat subsystem is one of multiple internal loops. Information is created entirely out of the interplay between the elements within that system. Therefore, 'the decisive conceptual innovation' of autopoietic systems, as Niklas Luhmann explains, is that 'their self-reference applies to the production of other *components* as well' as 'their own *structures*'.[25] To call the reflexivity in *Building Stories* autopoietic is, therefore, to say that the fiction refers to itself, not through a gesture towards an outside observer, but through the inclusion within the

system of that observer and the material components through which they access the narrative. Such a reflexive narrative system is not simply assembled and observed by an external reader, but, once assembled, includes that reader within itself, while nevertheless maintaining subsystems of the above-described narrative recursion.

At the end of the comic book titled, 'Touch Sensitive', a projection of the networked computer's role in everyday life into the far future presents a third aspect of informatics. A society is depicted in which commuters in search of entertainment are able to observe the building's tenants, who are portrayed in the main narrative, by accessing the 'memory fragment' of an 'area's consciousness cloud'.[26] A rendering of the cloud computing metaphor in its science fiction extreme has enabled traces of memory to be rendered as information, such that informatics becomes a ubiquitous form of interaction with both historical record and the material world in the present. The way in which these informational traces are depicted is illustrative of Ware's drawing style as such: they appear to be rendered in the same style as the surrounding buildings, trees, and people. However, we may suggest that the relationship is working in the inverse direction: all matter is being rendered in the style of information. Such an isomorphic aesthetic can be approached usefully through the concept of *digitality*.

Employing this term constitutes a gesture to a body of work in media theory and the philosophy of technology which, grounded in the technical specificity of digital conversion, has mapped the broader transformations within which computational systems have become ubiquitous and instrumental quotidian objects. Friedrich Kittler wrote that the 'general digitization of channels and information erases the differences among individual media'; thus, 'formerly distinct data flows' become 'a standardized series of digitized numbers', allowing 'any medium… [to] be translated into any other'.[27] Digitality refers to this process when it is applied beyond the channels of data flows. Franklin summarises that, in this generalised discretisation, '[d]igitality promises to render the world legible, recordable, and knowable via particular numeric and linguistic constructs' that proceed via 'a mode of capturing individual

and social behaviors for the purpose of valorization'.[28] In this sense, it 'can be placed in the category of practices that Bernard Stiegler describes as proceeding through grammatization'; for example, discretising gestures such that they can be reproduced automatically in the Fordist factory or the technical discretisation necessary 'for reproducing the visible' in the cinematic apparatus.[29]

Digitality can be observed in *Building Stories* in the ostensible equivalence of any object according to Ware's precise, architecturally schematic drawing style. Typically, a similar weight of line, lack of gradient in colour, and lack of modulation in tone is applied to humans, buildings and data alike. For Gates, such a style is described by Scott McCloud's concept of 'iconic drawings', which 'are simplified to the point of being almost pure symbol'.[30] Indeed, McCloud's argument is put in quite surprisingly cybernetic language. 'Pictures', he writes, 'are *received* information', whilst '[w]riting is *perceived* information'.[31] These definitions form the ends of a scale, at the middle of which increased 'simplification' in figuration makes pictures '*more like words*', and 'bolder, more direct' language makes words '*more like pictures*'.[32] Whilst these assembled dualisms are certainly reductive, McCloud's perspective is useful insofar as it indicates that an 'iconic' drawing style resembles, if not a proximity to meaning itself, then certainly a contemporary construction of how graphics are seen to present 'bolder, more direct' information. As such, it follows that the use of iconicity within Ware's style aligns it with the construction of clarity as uncluttered informational representation. It is this alignment which is produced by the discretisation of the visual message into a set of basic units: solid lines, blocks of colour and balanced tones. It is worth noting, briefly, that by remarking on this isomorphism, I am by no means suggesting that Ware's style is homogenous. Ware renders an equivalence between types of objects which is not reducible to a sameness in representational mode; rather, differences in style are based upon the informational variation, instead of the physical form, of the objects in question.

For Kittler, discretisation in the production of writing is exclusionary in a foundational sense: to 'record the sound sequences of speech, literature had to arrest them in a system of 26 letters, thereby categorically excluding all noise sequences'.[33] This exclusion of noise is the fundamental basis for digitality. It follows, then, that Ware's discretisation of visual messages into pictorial information excludes the noise of that which would clutter the image. We can see this feature in the comparison of Ware's style to what, in these terms, we may call the 'noisy' drawing style of the 'underground comix' of the 1970s avant-garde.[34] The black and white images of the early work of, for example, Art Spiegelman, Robert Crumb, or Aline Kominsky were characterised by broken, deviating lines and cluttered compositions—emphasising their subversive content through such stylistic excess. If iconic drawing does in fact create a convergence between pictures and words—in which the distance between their semiotic levels is reduced—it does so at the exclusion of everything which cannot be arrested into that semiotic level.

To take one example of noise's central exclusion, consider a scene that arises recursively multiple times, in which the unnamed female protagonist and her husband talk late one evening while using their laptops. At first, it would seem to be a purely quotidian interaction, as the panels alternate between depicting their halting, uncertain conversation and moments of silence hued by the blue glow of their laptop screens. One recursion to this scene, in the twenty-page coverless broadsheet comic, contains two panels which represent the view of the protagonist on her laptop (fig. 5), depicting the screen as a blank image—off-white, with a slight tint of blue. Here, informatics is portrayed through a lack within representation, rather than through an excess of visual information. It is the site of the central absence of noise. However, this absence is so overriding that no information does in fact appear. The computer screen is not an information processer, here, or even an information source, but a vacancy of information in a world of informatics. The symbols on the keyboard, too, are missing—both input and output devices are reframed through an absence of signifiers. The computer as a

quotidian object is therefore manifested as a lack in the perception of informatics, at the same time as the world itself is subject to the digitality of Ware's style. The formal and stylistic rendering of the visuals as information systems leaves the computer itself as an object which sends and receives no messages.

Indeed, this scene also demonstrates the valences revealed by employing descriptive terminology from cybernetic thought. The use of the term, homeostasis, refers in a significant sense to the desire for systemic order which we can observe in both cybernetic thought and Ware's narrative technique: the attempt at what we might call an anxious modelling of a dizzyingly vast totality into a quantifiable, orderly system. The content of the protagonist's conversation with her husband at the opening of this scene—her anxiety about food and other resource shortages in the world system—gestures towards a moment in which the kinds of management systems imagined in second-order cybernetics appear to be failing; a context which is itself accessed through the mediating apparatus of the networked computer. Employing the second concept, autopoiesis, allows us to apprehend the way in which such anxieties, which manifest in the accounting, allotting and ordering of all material, are channelled through the reader. The reader is integrated both into the self-destructive impulses of the protagonist's anxiety over the failings of the world system, and the technological structures through which it is given specific cultural expression.

In this way, the exclusion of noise cannot be understood as productive of an affectless or uninterested world of information. Instead, Ware renders a world in which the experience of the everyday contains an intimate confluence between affective resonance and the ubiquity of information technologies. This confluence, central to Ware's artistic practice, will be the concern of the next section of my essay.

**Cybernetic Melancholia**

In an essay on the section of *Building Stories* published in the *New York Times Magazine*—the piece in the style of a 'Little Golden Book', titled 'September 23rd, 2000'—Daniel Worden argues that it displays the modernist technique of evoking melancholy through fragmentation in form and alienation in the characters' inner lives. For Worden, Ware's 'emphasis on the past's relationship to the present bears a striking similarity' to Walter Benjamin's 'Angel of History', in the melancholic notion of history as the build-up of ruins behind a present which is 'constantly in flux'.[35] The question of how such modernist themes might be understood alongside what are often seen to be Ware's postmodernist aesthetics is prevalent in critical work on many of his graphic narratives.[36] Rather than weigh in on whether Ware is a modernist or postmodernist, I wish to describe the ways in which the poetics I have already outlined reframe the modernist evocation of melancholia by entangling its register with that of informatics.

As Ariela Freedman has remarked, 'the anticipation of loss is built into… [*Building Stories*'] very structure'.[37] At each of the formal levels I have described, such an anticipation and subsequent recognition of loss evokes the feeling of melancholia in and of its expression through an informatic apparatus. Employing a formal structure which forces the reader to delimit a dizzyingly vast number of potential reading pathways into one sequence, *Building Stories* evokes Freud's formulation of melancholia as a 'loss [which] is more notional in nature' than in the concrete form of mourning, such that the sufferer is prevented from performing the recuperation of 'mourning-work'.[38] This notional loss is present in the awareness of the erasure of all but one potential reading pathway. The model of reading as a homeostatic feedback system, therefore, creates a foundational, yet not locatable, loss: only one reading pathway can be actualised by the reader, but, unable ever to experience the billions of alternative potential narrative pathways, that reader is unable to imagine the specific objects they have lost. Instead, each loss results in another, as the reader is looped back into further choices that generate a spiralling cycle of successive detachment from unreachable potential objects.

*Building Stories*' autopoietic form of reflexivity evokes a different element of Freud's account of melancholia. Freud believed that the lack of a clear object to mourn caused the melancholic to turn their focus upon themselves, 'abasing' themselves and placing the concentration of their psychological pain upon their own ego, rather than upon the separation from the object they have lost.[39] This self-abasement is paralleled in the rerouting of feedback through the reader. Just as the melancholic is constantly turning their pain back upon themselves, the narrative loops back upon the reader, involving them in the cyclical creation and re-creation of *Building Stories*' affective register. Indeed, we may see the melancholic, already in Freud, as a kind of autopoietic machine insofar as their psyche becomes a self-contained system of reflexive self-abasement. The psychical decay which, for Freud, is the result of the melancholic turning in upon themselves is, in this sense, synonymous with systemic entropy.

To isolate the confluence between melancholia and the third formal concept I have outlined, digitality, it will be helpful to draw upon a different account of the qualities of melancholia. Peter Schwenger has offered a formulation of melancholia's affective properties in literature which reorients the concept into an aesthetic theory. He argues that 'there is a melancholy associated with physical objects': it is 'generated by the act of perception', which, 'always falling short of full possession, gives rise to a melancholy that is felt by the subject and is ultimately *for* the subject'.[40] Since this melancholy arises in the act of perception—in which the object 'is simultaneously apprehended and lost'—it operates in the quotidian interaction with objects which 'seem to partake in our lives; they are domesticated, part of our routine and so of us'.[41] As such, his version provides a theoretical language with which to approach the affective operation of everyday lived experience within a relationship of such perceptual detachment; what I have termed, in Ware's style, digitality. The loss of noise is here synonymous with that which, in Scwhenger's account, is lost in the moment of apprehension. Experiencing the world as always-already rendered as information produces a melancholy

located in the constant reproduction of the subject's lifeworld. I will explore the implications of this last point more thoroughly below.

The convergence between cybernetic logic and melancholic affect at each of these three levels is what I term *cybernetic melancholia*: a confluence formed between the cultural logic which each informatic concept exemplifies and the literary tradition of the representation of a melancholic inner life. However, I do not mean to suggest that cybernetic melancholia is purely a formal concern. Its register can be felt throughout the narrative in the anxiety concerning misapprehension and inexpressibility which arises in almost every interpersonal interaction in *Building Stories*. The scene depicting the protagonist and her husband on their laptops, which I described above, is exemplary in this regard. Later in the same piece, the other content of their conversation—her musings on whether to contact her estranged friend, Stephanie—takes on much greater significance. It is revealed that Stephanie has taken her own life, and the protagonist, never having reconnected with her, is overwhelmed by guilt for having caused their estrangement. Re-reading Stephanie's old emails to her, she finds them 'full of insight' where before she had thought them 'rambling', and her own responses inadequate, if indeed she finds that she had responded at all.[42] The lack of information on the computer screen is, therefore, instilled with the loss of her connection with her friend, in a kind of entropy in which emotional investment seeps away precisely in those moments wherein the possibility for re-connection seems most available. Framing detachment in this way serves to equate the loss of noise with the loss of emotional investment, and, as such, symbolically aligns cybernetics and melancholia by locating the computer as a site through which the subject is turned back upon themselves, rather than outwards towards the world. The source of both the misunderstanding between the protagonist and her husband—symptomatic of the increasing emotional distance between them—and the slipping away of the connection with her friend, would, at first, appear to be that of interpersonal communication failing on account of her distraction by informatics; a result of the excess of information which the computer encroaches into daily life. However,

Ware's insight is to convert the substance of miscommunication from a problem of distraction into a problem of *introspection*. The detachment emblematised in such a moment is reframed: rather than being a matter of excess, of sensory data and of information, it is a matter of loss—of sensory stimulation and of noise.

Schwenger evocatively uses the word 'sundering' to describe a 'loss at the very moment of apprehension' which produces the feeling of melancholy.[43] We see this sundering evoked as the central mechanism of the affective register of *Building Stories*, a sundering which occurs, not in the impossibility of connection and communication, but in their perpetual slippage away from the individual even as they appear most accessible. In this way, this equation—of the loss of noise with the melancholic process of turning in upon oneself—frames the everyday usage of information systems as, simultaneously, the site which holds the potential for connectivity, and the site where such a sundering—from noise, from the world, from others—does, in fact, take place.

**Cybernetics, Noise, and Time**

In the first part of this essay, I claimed that *Building Stories* can be placed within an emerging period of the exchange between literary culture and cybernetics, one based upon the contemporary ubiquity of informatics. To align Ware's aesthetic practice in this way is also to place it in dialogue with a number of recent periodisation frameworks that have claimed such a normalisation of informatics to be the defining feature of contemporary epistemic relations. From Gilles Deleuze's 'control societies' to Manuel Castells's 'network society' and James R. Beniger's 'Control Revolution',[44] cybernetics has provided the metaphorical language for some of the key attempts to theorise the social and political milieu of the contemporary moment; indeed, it may even be the major source for the vocabulary of the current frames of periodisation.[45] Yet, Ware's narrative is not that of the global, of large-scale social and political change. Instead, it is through an attentiveness to the quotidian aspects of characters' lived

experience that such concerns emerge; an attentiveness which Margaret Fink Berman has called an 'aesthetic of ordinariness' focused upon 'living moment-by-moment', and 'dwelling on the micro-gestures that narratives usually elide'.[46] Locating cybernetic melancholia in such micro-gestures presents the transformations of the contemporary moment in their everyday reproduction, rather than in their disruption to previous experiential modes. In effect, what is witnessed is the way in which the wider logic exemplified in cybernetic thought comes to be ordinary. Since, in *Building Stories*, a focus on the quotidian is understood through aesthetic procedures which instil that quotidian experience with a powerful affective register, this ordinariness of the cybernetic becomes inseparable from the production of melancholic affect.

In her account of cybernetics' legacy, N. Katherine Hayles articulated the central importance of the political implications of the cyberneticists' claim that information is immaterial.[47] This association has become a significant optic through which to view the relationship between the materiality of artistic and literary works and their modes of representing the epistemic shift into control, networked, or information societies—what Franklin has called the 'the doubly useful contradiction between technical materiality and conceptual immateriality'.[48] If we follow Hayles and Franklin in placing the problem of information's materiality at the centre of the cultural experience of the present, then we might associate *Building Stories*' attentiveness to micro-gestures with its insistence on the physical experience of reading. The inflexibly material aspects of *Building Stories*' printed form confront the reader with those 'logical and physical processes' that make its informational aesthetic possible and which Franklin sees as slipping from view in the contemporary moment.[49] In this way, it associates this problem of materiality in informatics with an attentiveness to the melancholy of its characters' everyday lived experience.

To clarify this association with the visibility of materiality, it is worth noting *Building Stories*' complex relationship with electronic literary forms. Aaron Kashtan employs this parallel in his argument concerning *Building Stories*' position in print culture and digital

publishing. He claims that 'one of the key ironies of *Building Stories* [is that] it is more hypertextual than actual hypertext', because it 'takes the fragmentary, multilinear structure that hypertext borrowed from the codex book and feeds that structure back into the codex'.[50] For Kashtan, the graphic narrative form always 'combines the continuity of analog media with the discreteness of digital media'; in heightening these aspects, Ware's formal experiment thus 'suggests the potential of comics for imagining a book of the future that would be both printed and digital at once'.[51]

But the association with hypertext might be materialised not only in the opposition or synthesis between print and digital—or analogue and digital—renderings of text. Where hypertext's connective structure is typically taken to imitate the model of the labyrinth, the distributed network, or the rhizome,[52] I have argued that *Building Stories* can be modelled by the form of a cybernetic system that recurs, looping back upon itself, rather than extending between spatially distributed points in a network. This represents a crucial difference for the organisation of the relationship between materiality and temporality that is embedded in the text's structure. Whilst hypertext materialises features of digitality in its networked mode—instantly navigating between discontinuous, but nonetheless linked, points—the actual materiality of computation that makes these connections possible is invisible to the reader. As Hayles has argued, computation exists for electronic literary forms at a level of 'processing' that makes the form possible, but which is 'necessarily prior' to reading and interpretation, such that 'it would be more accurate to call an electronic text a *process* than an object'.[53] *Building Stories*, by contrast, makes the material properties of its own connectivity visible by rendering them, not in the instant linking between distributed lexia, but in the haptically and temporally stressed process of the system's recursion. Materiality is thus made visible in the haptic construction of the relation between objects, through the reader's selection of which text to read, on the one hand, and through the accessing of specific connections—the reappearance of, for example, Branford the Bee—through recursion to previous pieces, on the other. In this

way, the reader is directly confronted with the materiality of the process that makes connectivity possible. Such a form may suggest a useful provocation for questions concerning the textuality of electronic literature, but for now I wish to conclude by commenting on the implications that the alternative staging of materiality to be found in *Building Stories* holds for the relationship between informatics, temporality, and aesthetics.

We might see the 'recalcitrantly material, fragmentary rather than fungible' aspects of Hal Foster's 'archival impulse' in Ware's aesthetic, and, as in the visual art Foster analyses, cybernetic melancholia certainly provokes a 'call out for human interpretation, not machinic reprocessing'.[54] Yet, in contrast to the archival experience of delving into the resources of the past, Ware demonstrates a form of memory in which history is composed of always-interlocking and always-present feedback loops.[55] If we think back to both its structure of reading and the more local example of the double-page spread with which I began this essay (fig. 1), we might note the way in which the nonlinearity of *Building Stories*' formal and stylistic arrangement visualises the connectivity of its narrative. In Ware's cybernetic diagrams and in the material process of assembling *Building Stories*, narrative strands are folded into an intricate pattern that spatialises their multiple temporalities into one closed system.

This practice of enfolding temporalities evokes an alternative understanding of melancholia in which its literary evocation, rather than generating only the paralysis of Freud's pathology, opens the space for positive circumspection as a starting point for creative and often insightful forms of reflection. *Building Stories*' diagrammatic nexuses construct a space within its narrative architecture for the loss of noise to be contemplated through the affective register of melancholia. It is not only the contradiction between the material and the immaterial that is staged, but also between recursion and succession—a contradiction rendered in the simultaneity of the cybernetic system's finite spatial enclosure and infinite temporal repeatability. Indeed, it is this systemic form that we can observe in figure 1 enabling both the rendering of the internally looping, tangling temporalities—both real and imagined—and the

reader's capacity to see the entire system from a vantage not available within it. In this way, the disclosure of certain intensities of melancholic affect in *Building Stories* serves also to open a space of reflection that is structured by the constellation of the cybernetic system and animated by the potency of that affective register.

Despite the potentials for insight which cybernetic melancholia might produce, it is worth closing by emphasising that its own ground is that of the gap between the desires articulated in *Building Stories*' formal apparatus and the inevitability of their foreclosure due to the exclusions upon which their achievement is premised. Ware's formal and stylistic inventiveness can therefore be seen, centrally, to be driven by an unrealisable desire for a totality which could link up the fragmentary nature of experience; for a mode of thought which could step outside of reflexive looping; and for a representational schema which could describe the world with perfect precision and absolute clarity. It is a mapping of a form of lived experience particular to the present moment, in which—as the philosophical collective Tiqqun, writing on cybernetics, put it—the '*problem of mastering uncertainty*' appears to be solvable through 'translating the problem of uncertainty into a problem of information'.[56] However, simultaneously, in which the awareness of the exclusion of noise—when information is created—foregrounds the failure to achieve such mastery. In this way, the melancholia of Ware's graphic narrative fundamentally presents a world in which cybernetics, and its descendant ubiquitous forms of informatics, cannot be thought of as creating an affectless virtual space. Instead, this is a world that must be thought of as inseparable from a set of social and economic phenomena which imbue the quotidian lived experience of the present with complex, and often disquieting, affective modes.

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commentary of Hunter Dukes and Jane Elliott on its many drafts; nor without the unwavering encouragement of my sister and support of my parents.

## Notes

1. Chris Ware, *Building Stories* (London: Random House, 2012), unpaginated; since most of the 14 pieces of which *Building Stories* consists are not titled or paginated, I refer to them by their material form—such as, here, 'the hardcover book'.
2. Scott McCloud, *Understanding Comics: The Invisible Art* (New York: William Morrow, 1993). McCloud's concepts are now regularly critiqued in academic writing for their lack of theoretical sophistication, although the book remains a key text for many practitioners of the form. I raise it here only to isolate what I believe to be the key idea behind Ware's meditations on the organisation of panels.
3. Chris Ware, *Jimmy Corrigan: The Smartest Kid on Earth* (London: Jonathan Cape, 2001), unpaginated.
4. Isaac Gates, 'Comics and the Grammar of Diagrams', in David M. Ball and Martha B. Kuhlman (eds), *The Comics of Chris Ware: Drawing as a Way of Thinking* (Jackson, MS: University Press of Mississippi, 2010), pp. 90–106 (p. 99).
5. Thierry Groensteen, *The System of Comics*, trans. Bart Beaty and Nick Nguyen (Jackson, MS: University Press of Mississippi, 2007), p. 21.
6. Groensteen, *The System of Comics*, p. 22.
7. Bernard Dionysius Geoghegan, 'From Information Theory to French Theory: Jakobson, Lévi-Strauss, and the Cybernetic Apparatus', *Critical Inquiry*, 38.1 (2011), pp. 96–126 (pp. 97–101).
8. Ronald R. Kline, *The Cybernetics Moment: Or Why We Call Our Age the Information Age* (Baltimore, MD: Johns Hopkins University Press, 2015), pp. 68–73.
9. See Friedrich A. Kittler, *Literature, Media, Information Systems: Essays* (London: Routledge, 1997), pp. 101–16; and David Porush, *The Soft Machine: Cybernetic Fiction* (London: Methuen, 1985), as well as his articles, 'Technology and Postmodernism: Cybernetic Fiction', *SubStance*, 9.2 (1980), pp. 92–100, and, 'Cybernetic Fiction and Postmodern Science', *New Literary History*, 20.2 (1989), pp. 373–96. For a reading that emphasises Pynchon and Gaddis's misunderstanding of cybernetic concepts, see David Letzler, 'Crossed-Up Disciplinarity: What Norbert Wiener, Thomas Pynchon, and William Gaddis Got Wrong about Entropy and Literature', *Contemporary Literature*, 56.1 (2015), pp. 23–55.

10. See Seb Franklin, ‘Humans and/as Machines: Beckett and Cultural Cybernetics’, *Textual Practice*, 27.2 (2013), pp. 249–68; and the chapters on Beckett in Porush’s *The Soft Machine*, and in Hugh Kenner’s canonical *The Mechanic Muse* (Oxford: Oxford University Press, 1987).
11. Franklin, ‘Machines’, p. 264.
12. For key readings of the relation between Gibson and the histories of cybernetics and computation, see N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (London: University of Chicago Press, 1999) and Paul N. Edwards, *The Closed World: Computers and the Politics of Discourse in Cold War America* (London: The MIT Press, 1997), pp. 347–51.
13. Donna J. Haraway, *Simians, Cyborgs, and Women: The Reinvention of Nature* (London: Free Association Books, 1991), p. 173.
14. Orit Halpern, *Beautiful Data: A History of Vision and Reason since 1945* (London: Duke University Press, 2014), p. 48.
15. Seb Franklin, ‘Cloud Control, or the Network as Medium’, *Cultural Politics* 8.3 (2012), pp. 443–64 (p. 457).
16. Indeed, these aspects caused Hilary Chute and Patrick Jagoda to suggest, in passing, that ‘*Building Stories* is virtually a manifesto for the book as a material object’ (‘Special Issue: Comics & Media’, *Critical Inquiry*, 40.3 [2014], pp. 1–10 [p. 7]), a statement which inspired Aaron Kashtan to use Ware’s graphic narrative as the basis for his argument that ‘comics can synthesize print and the digital in ways which are still difficult for prose literature’ (‘“And it Had *Everything* in it”: *Building Stories*, Comics, and the Book of the Future’, *Studies in the Novel*, 47.3 [2015], pp. 420–447 [p. 446]). I return to this point in the essay’s conclusion.
17. Edward A. Shanken, ‘Cybernetics and Art: Cultural Convergence in the 1960s’, in Bruce Clarke and Linda Dalrymple Henderson (eds), *From Energy to Information: Representation in Science and Technology, Art, and Literature* (Stanford, CA: Stanford University Press, 2002), pp. 255–77 (p. 255).
18. This number is calculated by a factorial of fourteen, and precisely equals 87178291200.
19. For an historical account of homeostasis’ role in the early debates at the Macy Conferences, see Hayles, *Posthuman*, pp. 50–80.
20. Peter Galison, ‘The Ontology of the Enemy: Norbert Wiener and the Cybernetic Vision’, *Critical Inquiry*, 21.1 (1994), pp. 228–66 (p. 262).
21. Warren Weaver, ‘Recent Contributions to the Mathematical Theory of Communication’, in Warren Weaver and Claude Shannon (eds), *The Mathematical Theory of Communication* (Urbana, IL: University of Illinois Press, 1949), pp. 3–28 (pp. 7, 9).

22. Ware, ‘Disconnect’, in *Building Stories*.
23. Brian McHale, *Postmodernist Fiction* (London: Methuen, 1987), p. 113.
24. Humberto Maturana and Francisco Varela, *Autopoiesis and Cognition: The Realization of the Living* (London: D. Reidel Publishing Company, 1980), p. xvii.
25. Niklas Luhmann, *Essays on Self-Reference* (New York: Columbia University Press, 1990), p.3.
26. Ware, ‘Touch Sensitive’, in *Building Stories*.
27. Friedrich Kittler, *Gramophone, Film, Typewriter*, trans. Geoffrey Winthrop-Young and Michael Wutz (Stanford, CA: Stanford University Press, 1999), pp. 1–2.
28. Seb Franklin, *Control: Digitality as Cultural Logic* (London: The MIT Press, 2015), pp. xix, 8.
29. Franklin, *Control*, p. xviii; Bernard Stiegler, *For a New Critique of Political Economy*, trans. Daniel Ross (Cambridge: Polity, 2010), p. 33.
30. Gates, ‘Comics and the Grammar of Diagrams’, p. 96.
31. McCloud, *Understanding Comics*, p. 49.
32. Ibid.
33. Kittler, *Gramophone*, p. 3.
34. For a history and analysis of the ‘underground comix’ movement, see chapter four of Jared Gardner, *Projections: Comics and the History of Twenty-First Century Storytelling* (Stanford, CA: Stanford University Press, 2012).
35. Daniel Worden, ‘On Modernism’s Ruins: The Architecture of “Building Stories” and *Lost Buildings*’, in Ball and Kuhlman (eds), *Chris Ware*, pp. 107–120 (p. 109).
36. In particular, we might contrast Brad Prager’s emphatic argument that Ware ‘undertakes a return to… a modernist standpoint’ (‘Modernism and the Contemporary Graphic Novel: Chris Ware and the Age of Mechanical Reproduction’, *International Journal of Comic*, *Art* 5.1 [2003], pp. 195–213 [p. 197]), with Worden’s more ambiguous meditation on Ware’s use of the themes of modernism beside ‘devices often attributed to postmodernism’ (p. 110).
37. Ariela Freedman, ‘Chris Ware’s Epiphanic Comics’, *Partial Answers: Journal of Literature and the History of Ideas*, 13.2 (2015), pp. 337–58 (p. 340).
38. Sigmund Freud, *On Murder, Mourning, and Melancholia*, trans. Shaun Whiteside (London: Penguin, 2005), p. 205.
39. Freud, *On Murder, Mourning, and Melancholia*, p. 206.
40. Peter Schwenger, *The Tears of Things: Melancholy and Physical Objects* (London: University of Minnesota Press, 2006), pp. 1–2.

41. Schwenger, *The Tears of Things*, pp. 2, 3.
42. Ware, 'twenty-page coverless broadsheet comic', in *Building Stories*.
43. Schwenger, *The Tears of Things*, p. 7.
44. Gilles Deleuze, *Negotiations*, trans. Martin Joughin (New York: Columbia University Press, 1995), p. 180; Manuel Castells, *The Rise of the Network Society* (Oxford: Wiley-Blackwell, 2010), p. 500; James R. Beniger, *The Control Revolution: Technological and Economic Origins of the Information Society* (London: Harvard University Press, 1986), p. vi.
45. See Franklin's outline of recent periodisation frameworks (*Control*, pp. xiii–xiv); he has also demonstrated that this indebtedness may have its roots in Norbert Wiener's own periodisation framework, in which, '[i]f the seventeenth and early eighteenth centuries are the age of clocks, and the later eighteenth and the nineteenth centuries constitute the age of steam engines, the present time is the age of communication and control' (Norbert Wiener, *Cybernetics: Or Control and Communication in the Animal and the Machine* [Cambridge, MA: The MIT Press, 1980], p. 39; see Franklin, *Control*, p. 57).
46. Margaret Fink Berman, 'Imagining an Idiosyncratic Belonging: Representing Disability in Chris Ware's "Building Stories"', in Ball and Kuhlman (eds.), *Chris Ware*, pp. 191–205 (p. 195).
47. See Hayles, *Posthuman*, pp. 1–24.
48. Franklin, 'Cloud', p. 445.
49. Ibid., p. 457.
50. Kashtan, '"And it Had Everything in it"', p. 437.
51. Ibid., p. 441.
52. The classic account of electronic literature that takes this view is Espen J. Aarseth, *Cybertext: Perspectives on Ergodic Literature* (London: Johns Hopkins University Press, 1997); see also Patrick Jagoda, *Network Aesthetics* (London: The University of Chicago Press, 2016), for a more recent take on these issues, one which offers a significant account of their import for thinking about the political consequences of representing information networks.
53. N. Katherine Hayles, *My Mother Was a Computer: Digital Subjects and Literary Texts* (London: The University of Chicago Press, 2005), p. 101.
54. Hal Foster, 'An Archival Impulse', *October* 110 (2004), pp. 3–22 (p. 5).
55. See Halpern, *Beautiful Data*, pp. 39–78, for an historical account of cybernetics' construction of temporalities that resist the concept of the archive.
56. Tiqqun, *Tiqqun 2* (Paris: Belles-Lettres, 2001), pp. 45–6; translation mine.